

**MODULAR IMPLANTABLE MEDICAL DEVICE****ABSTRACT**

An implantable medical device includes a plurality of separately housed and flexibly interconnected modules. A first module includes a control electronics within a first housing, and may be coupled to a second module that includes a second housing by a flexible interconnect member. In some embodiments, an overmold, which may be flexible, at least partially encapsulates the first and second housings. The second module may be a power source module that includes a power source, such as a rechargeable battery, within the second housing. The implantable medical device may also include a third module, such as a recharge module that includes a coil within a third housing. The overmold may at least partially encapsulate the third housing, or the third module may be tethered to the overmold by a flexible tether member. A flexible interconnect member and/or flexible overmold may allow multiples degrees of freedom of movement between modules of an implantable medical device.